REPORT NO. 78-3-17

FOREST INSECT AND DISEASE MANAGEMENT
U.S. FOREST SERVICE
DORAVILLE, GEORGIA

## REPORT OF AERIAL DETECTION SURVEY

LAND OWNERSHIP OR SURVEY AREA: PISGAH NATIONAL FOREST AND PRIVATE LANDS WITHIN NATIONAL FOREST BOUNDARIES

STATE: NORTH CAROLINA

AREA WITHIN SURVEY BOUNDARY: 1,077,000 ACRES

DATE: JUNE 6, 1978

PERCENT COVERAGE: 50%

AIRCRAFT: CESSNA 182

CREW: C.W. DULL, W.A. CAROTHERS, HARVEY BARON, NORTH CAROLINA FOREST SERVICE

REPORT PREPARED BY: C.W. DULL

SURVEY OBJECTIVES: TO DETECT FOREST INSECT AND/OR DISEASE ACTIVITY ON THE PISGAH NATIONAL FOREST. SPECIAL EMPHASIS WAS PLACED ON DELINEATING AREAS OF DEFOLIATION SUSPECTED TO BE CAUSED BY THE FALL CANKERWORM, *Alsophila pometaria* (HARRIS).

## SURVEY RESULTS

THE AERIAL SURVEY REVEALED APPROXIMATELY 1200 ACRES (480 HA.) WITH LIGHT TO MODERATE DEFOLIATION NEAR CRAGGY DOME ON THE TOECANE RANGER DISTRICT. APPROXIMATELY 6000 ACRES (2400 HA.) WERE DEFOLIATED ON THE FRENCH BROAD RANGER DISTRICT. IN ADDITION, 1600 ACRES (640 HA.) WERE DEFOLIATED ON PRIVATE LANDS NEAR BIG BALD ALONG THE TENNESSEE-NORTH CAROLINA STATE LINE (SEE ATTACHED MAPS). SCATTERED SINGLE RED AND FADING PINES AND ONE FIVE-TREE SPOT WERE OBSERVED ON THE SURVEY AREA.

## CONCLUSIONS

THE IMPACT OF FALL CANKERWORM DEFOLIATION IN THE SOUTHERN APPALACHIAN MOUNTAINS IS CURRENTLY UNDER INVESTIGATION BY FOREST INSECT AND DISEASE MANAGEMENT PERSONNEL.

THE FALL CANKERWORM CAN BE AN IMPORTANT PEST OF FOREST TREES WITH OUTBREAKS OCCURRING PERIODICALLY. DEFOLIATION OBSERVED DURING THIS AERIAL SURVEY DID NOT COVER EXTENSIVE AREAS. HOWEVER, THE FALL CANKERWORM POPULATIONS SHOULD CONTINUE TO BE MONITORED SINCE THEY ARE LOCATED NEAR SEVERAL HIGH VALUE RECREATION AREAS.

TREES DEFOLIATED THIS SPRING WILL PROBABLY PRODUCE NEW LEAVES DURING THE SUMMER. GROWTH LOSS MAY OCCUR AFTER CONSECUTIVE YEARS OF DEFOLIATION. TREE MORTALITY MAY RESULT AFTER SEVERAL SUCCESSIVE YEARS OF COMPLETE DEFOLIATION.

PINE BARK BEETLE ACTIVITY IN THE SURVEY AREA WAS AT A LOW LEVEL.

ON-SITE EXAMINATIONS OF THE AREAS WITH HARDWOOD DEFOLIATION WILL BE MADE BY FOREST INSECT AND DISEASE MANAGEMENT PERSONNEL. FIELD SURVEILLANCE BY NATIONAL FOREST PERSONNEL FOR INSECT AND DISEASE PROBLEMS SHOULD CONTINUE.

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FOR ANY ADDITIONAL INFORMATION, CONTACT:

FOREST INSECT AND DISEASE MANAGEMENT UNIT
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Figure 1.

Survey Date: 6/7/78

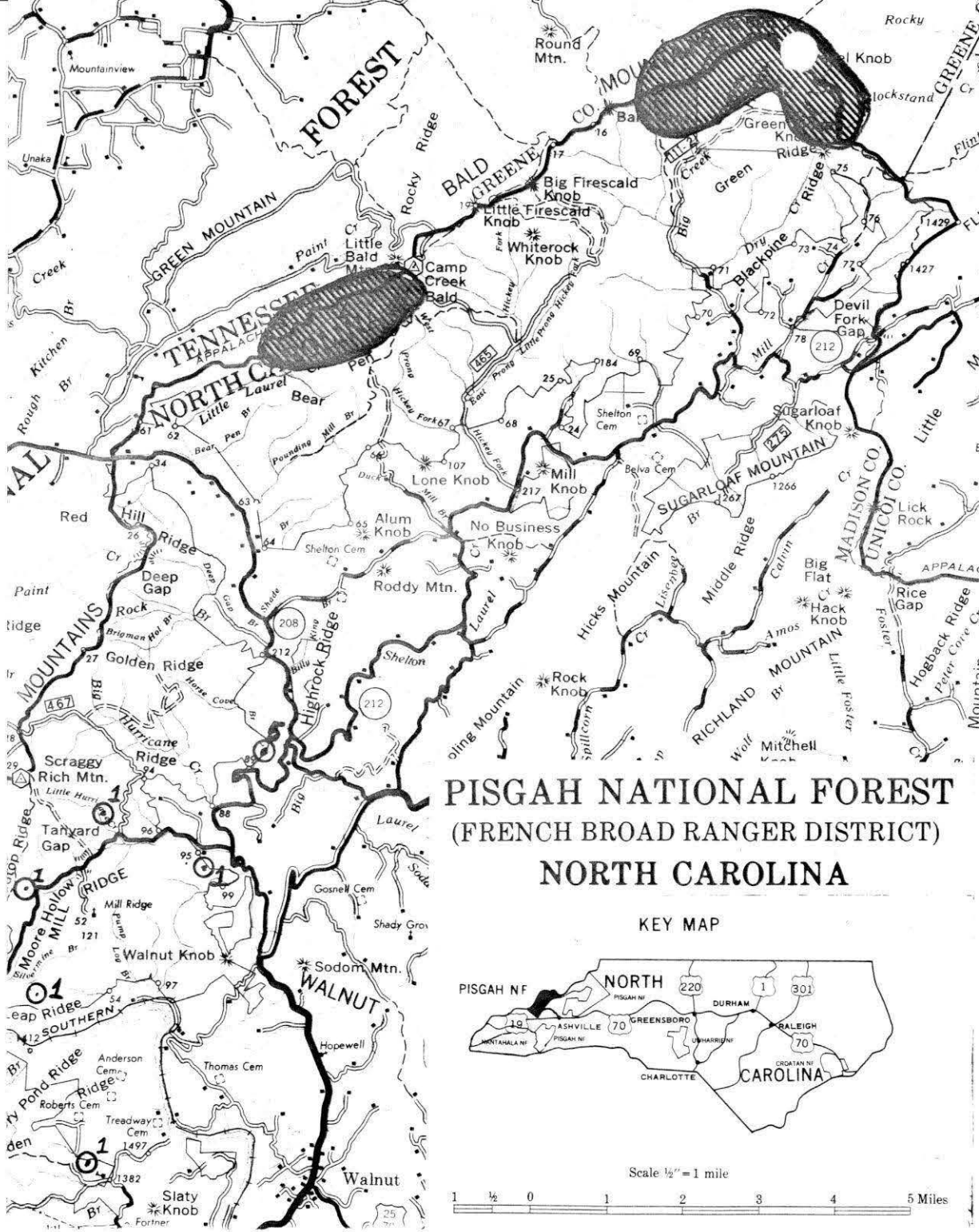
Survey Crew: C. W. Dull
W. A. Carothers
Harvey Baron,
N.C. Forest Service

Percent Coverage: 50%

Aircraft: Cessna 182

Area of Hardwood Defoliation

⊙ Red or Fading Pine(s)




# PISGAH NATIONAL FOREST
## (FRENCH BROAD RANGER DISTRICT)
## NORTH CAROLINA

KEY MAP




Scale ½" = 1 mile

1 ½ 0 1 2 3 4 5 Miles

Figure 2.

Survey Date: 6/7/78

Survey Crew: C. W. Dull
W. A. Carothers
Harvey Baron,
N.C. Forest Service

Percent Coverage: 50%

Aircraft: Cessna 182

Area of Hardwood Defoliation

⊙ Red or Fading Pine(s)

# PISGAH NATIONAL FOREST
## NORTH CAROLINA

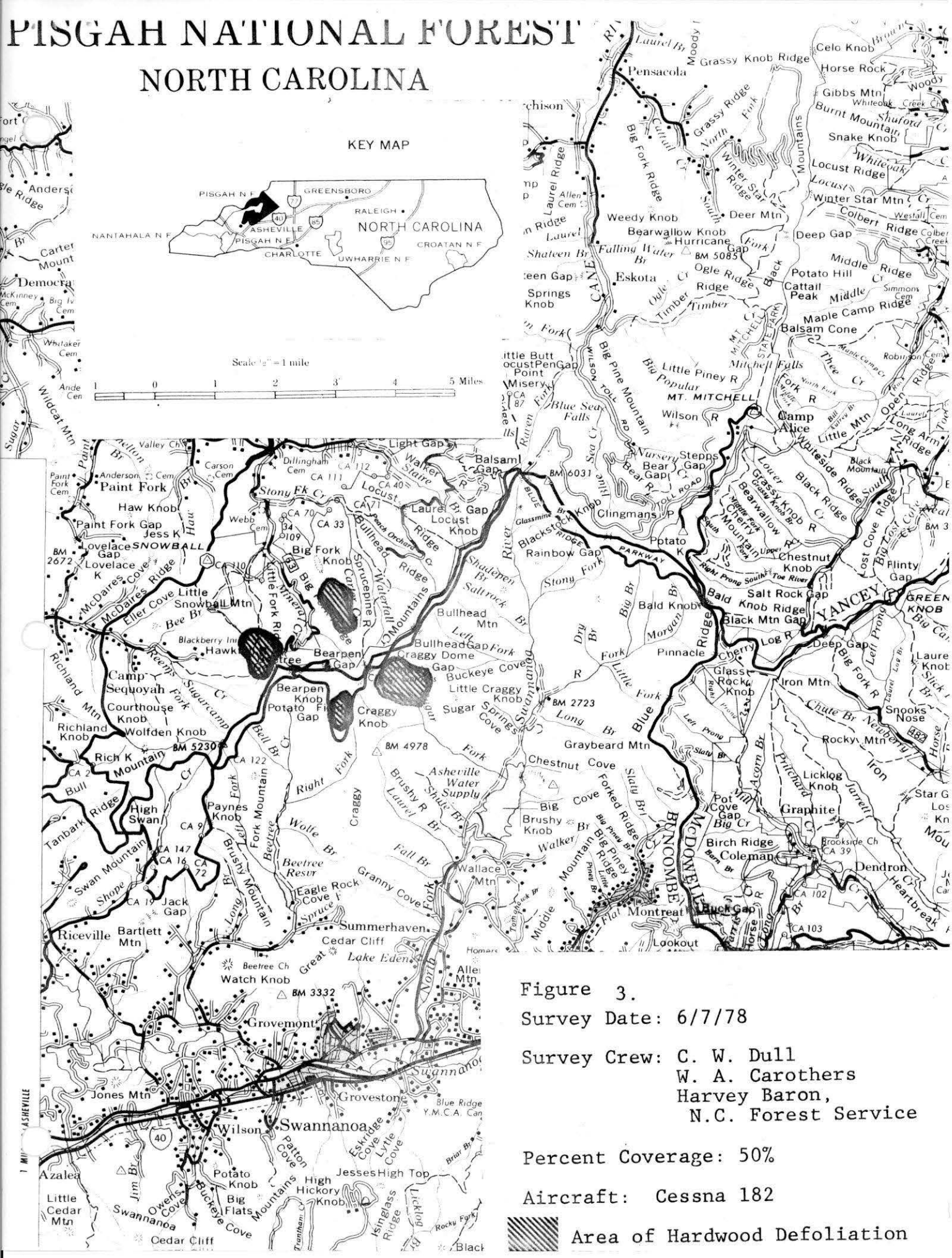



Figure 3.

Survey Date: 6/7/78

Survey Crew: C. W. Dull
W. A. Carothers
Harvey Baron,
N.C. Forest Service

Percent Coverage: 50%

Aircraft: Cessna 182

Area of Hardwood Defoliation